



Docket No.: 5000-0123PUS1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Jordi TORMO I BLASCO et al.

Application No.: 10/532,770

Confirmation No.: 2378

Filed: April 27, 2005

Art Unit: 1616

For: FUNGICIDAL MIXTURES

Examiner: J. D. Pak

SUBMISSION OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Subsequent to the filing of the above-identified application on April 27, 2005, attached hereto is an English translation of the International Preliminary Examination Report (Form PCT/IPEA/409) that should be made of record in the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: May 19, 2006

Respectfully submitted,

By

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Attachment(s)

PATENT COOPERATION TREATY

PCT/EP2003/01277
EC, ID, NZ, OAPI
US - Birch

From the INTERNATIONAL BUREAU

PCT 06. Juli 2005

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rule 72.2)

To:

BASF AKTIENGESELLSCHAFT
67056 Ludwigshafen
ALLEMAGNE

1. AST/V
2. Ref

Date of mailing (day/month/year)
30 June 2005 (30.06.2005)

EL: Phase beendet 12.06.05

Applicant's or agent's file reference
0000054068

IMPORTANT NOTIFICATION

International application No.
PCT/EP2003/012772

International filing date (day/month/year)
14 November 2003 (14.11.2003)

Applicant

BASF AKTIENGESELLSCHAFT et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, CN, GH, KG, KP, KR, MK, MZ, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, BA, BB, BG, BR, BY, BZ, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EP, ES, FI, GB, GD, GE, GM, HR, HU, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Yolaine Cussac

Facsimile No.+41 22 740 14 35

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Translation

Applicant's or agent's file reference 0000054068	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2003/012772	International filing date (day/month/year) 14 November 2003 (14.11.2003)	Priority date (day/month/year) 15 November 2002 (15.11.2002)
International Patent Classification (IPC) or national classification and IPC A01N 43/90		
Applicant BASF AKTIENGESELLSCHAFT et al.		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows: <ul style="list-style-type: none"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4.	This report contains indications relating to the following items: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand 28 May 2004 (28.05.2004)	Date of completion of this report 29 November 2004 (29.11.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2003/012772

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-12 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____ 1-10 _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/12772

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following international search report citations:

D1: WO 98/46607 A

D2: EP 988790 A

D3: WO 99/31981 A

D4: WO 97/10716 A

D5: US 5593996 A

D6: WO 02/56688 A

Novelty

The present application satisfies the requirement of PCT Article 33(1) in conjunction with PCT Article 33(2), because the subject matter of claims 1 to 10 is novel.

The subject matter of independent claim 1 is a fungicidal mixture of a specific fungicidal triazolopyrimidine (hereinafter referred to as TP1) and N-biphenyl nicotinamides in a synergistically effective amount. The other independent claims 6 and 10 are directed to a method for the control of phytopathogenic harmful fungi using a mixture of this kind and to the use of the two compounds for the production of agents for the control of harmful fungi, respectively.

None of the above citations discloses the specific mixture forming the subject matter of the present application.

D1 discloses *inter alia* the compound TP1 and its efficacy against phytopathogenic fungi such as *Botrytis cinerea*; D1 also mentions the possibility of its being mixed with other fungicides.

D2 discloses synergistic mixtures of triazolopyrimidines with other fungicides such as strobilurins and azoles.

D3 discloses synergistic mixtures of fungicidal N-biphenyl nicotinamides, such as the compound known as boscalid (or nicobifen) in claim 3 of the present application, with fungicidal dicarboximides or 2-phenylaminopyrimidines.

D4 discloses synergistic mixtures of fungicidal N-biphenyl nicotinamides such as boscalid with fungicidal inhibitors of the cytochrome complex III, such as the ingredients known as strobilurins.

D5 demonstrates the efficacy of triazolopyrimidines as used in D2 against phytopathogenic harmful fungi such as *Botrytis sp.*.

Lastly, D6 discloses synergistic mixtures of fungicidal N-biphenyl nicotinamides such as boscalid with fungicidal benzophenones for the control of phytopathogenic harmful fungi such as *Sphaerotheca sp.*.

Inventive step

The present application satisfies the requirements of PCT Article 33(1) in conjunction with PCT Article 33(3), because the subject matter of claims 1 to 10 involves an

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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inventive step.

In the light of the description and the closest prior art in citation D1, the problem addressed by the application can be considered that of providing synergistic mixtures of triazolopyrimidines with other fungicides.

The proposed solution is characterised by the use of the specific triazolopyrimidine TP1 in combination with N-biphenyl nicotinamides such as boscalid.

The closest prior art document discloses that certain 2,4,6-trifluorophenyl-triazolopyrimidines exhibit good efficacy against, *inter alia*, *Botrytis* and that TP1 appears to be the most effective of these compounds against *Botrytis*. Said document refers to citation D5 as an earlier publication of this general class of substances, to which the compounds selected here in D1 are presumably to be considered superior. Also proposed is mixing with other fungicides, which might lead to a synergistic effect. N-biphenyl nicotinamides are not, however, specifically mentioned.

To arrive at the subject matter of the application, the triazolopyrimidine in the present application has to be specifically selected from the D1 triazolopyrimidines, and N-biphenyl nicotinamides have to be specifically selected as the other component instead of one of the compounds listed in D1. The additional information in D2 cannot render one or the other obvious, since D2 selects other triazolopyrimidines and does not even mention N-biphenyl nicotinamides such as boscalid.

Proceeding from D2 *mutatis mutandis* the triazolopyrimidine again had to be selected and, moreover, the other

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components selected therein had to be replaced by the completely different N-biphenyl nicotinamides. There was no reason to do this, let alone to expect a synergistic effect.

D3, D4 and D6 require the replacement of totally different kinds of fungicides by TP1. The pyrimidine structural element in the cyprodinil, etc. in D3 is far too dissimilar for a person skilled in the art to expect comparable properties. The D4 strobilurins and the D6 benzophenones are structurally completely unrelated.

A skilled person was therefore unable to foresee that the claimed combinations would exhibit a synergistic effect.

Industrial applicability

The subject matter of claims 1 to 10 is considered to be industrially applicable (PCT Article 33(1) and (4)).